

## Claims

1. A coreless roll (10', 20, 30), comprising one sheet (10) of dry flexible material such as an absorbent fibrous material formed by the rolling of the sheet around an winding axis, characterized in that it comprises a center-feed first strip (10B, 21, 31) forming a projection along said axis, in relation to at least one part of one of the sides of the roll.

2. A roll as defined in the preceding claim whose length for the first strip (10B) is between 0.3 and 20 cm., but preferably between 1 and 15 cm.

3. A roll (10') as defined in Claim 1 or 2 whose first strip (10B) comprises of a portion (10A) of the internal end of the sheet (10).

4. A roll (10') as defined in Claim 3 whose first strip (10B) is formed by crosswise folding on the winding axis of the roll of said end portion (10A).

5. A roll (10') as defined in Claim 4, whose first strip (10B) is tapered.

6. A roll (20, 30) as defined in Claim 1 whose first strip comprises of an end portion of the sheet projecting outward in relation to a groove (21) or a recess (31) made on a side of the roll next to its axis.

7. A roll as defined in Claim 1, whose first strip (10B) is visually reinforced by coloring.

8. A roll as defined in Claim 1 in which the first strip (10B) is mechanically reinforced by a supplementary element.

9. A roll as defined in Claim 1, in which the first strip (10B) is constituted by an element joined onto a portion of the internal end of the sheet (10A).

10. A manufacturing process for a roll (10') as defined in any of Claims 2 to 5, in which the first strip (10B) is made by the crosswise folding of a portion (10A) of the end of the sheet, in such a way that it forms a non-right angle in relation to the winding axis of the roll and extends over the edge of the sheet, before the sheet is made into a roll (10').

11. A process as defined in the preceding claim in which the making into a roll (10') of the sheet is done on a winding support.

12. A process as defined in any of claims 10 and 11 according to which the first turns at the center of the roll are not connected to one another.

13. A process as defined in one of Claims 10 to 12, with the manufacturing stages of the roll (10') by rolling of the sheet (10) around a winding support (11), according to which:

the sheet is arranged in such a way that it is extended out to an end perpendicular on each side of winding support (11),

this end of the sheet (10A) is folded onto the winding axis of the roll,

this portion (10A) of the end of the sheet is maintained on the winding support (11),

the winding support is placed in rotation around its axis in such a way as to roll the sheet (10),

characterized in that before the placing in rotation of the winding support (11),

said end portion (10A) of the sheet is arranged in such a way that it extends outside one of the side edges of the sheet (10).

14. A process as defined in the preceding claim, in which the winding support (11) is placed in relation to the sheet (10) in such a way that one portion (10A) of the end of the sheet is arranged on the side of the support (11) and the rest of the sheet (10) of the other, said end portion (10A) is returned onto the support with a crosswise movement.

15. A process as defined in the preceding claim in which said crosswise movement is carried out by the projection of a stream of air.

16. A process as defined in Claim 14 in which said crosswise movement is effected by the friction of a part of the end portion.

17. A process as defined in one of the Claims 10 to 16, in which a wide sheet (1) of flexible material is cut into a plurality of individual sheets (10<sub>1</sub>, 10<sub>2</sub>, ...) arranged side by side, a portion (10A<sub>1</sub>, 10A<sub>2</sub>, ...) of the end of said sheets is moved crosswise, said sheets are rolled around the winding support (11) and,

each of the rolls are separated after their formation, thereby releasing the first strip (10B).

18. A manufacturing process for a roll as defined in one of Claims 2 to 5, in which

the roll is formed by the rolling of the sheet onto a winding support,

the support roll is extracted, and

the end portion is caused to glide outside the opening made by the support before the opening caves in on itself in order to form said first strip (10B).

19. A process as defined in Claim 18, in which

a wide sheet of flexible material is first cut into a plurality of individual sheets (10<sub>1</sub>, 10<sub>2</sub>, ...) arranged side by side,

said sheets are rolled around a winding support (11) and each of the rolls is separated after their formation, before each one of the portions (10A<sub>1</sub>, 10A<sub>2</sub>, ...) of their end is made to slide outside the opening created by the support.

20. A process as defined in Claim 18 in which

a wide sheet of flexible material is rolled around a winding support (11) in order to form a "log" along the total width of the sheet and at the diameter of the final individual roll, the rolls are made by the sawing of this "log" before each of the portions (10A<sub>1</sub>, 10A<sub>2</sub>, ...) of their end is made to slide outside the opening made by the spindle.

21. A process for the manufacturing of a roll as defined in one of claims 2 to 5, in which

a wide sheet of flexible material is cut into a plurality of individual sheets (10<sub>1</sub>, 10<sub>2</sub>, ...) arranged side by side by means of a cutting device,

the first turn or first turns of the roll is/are first to be wound,

the first strip (10B) is made by the crosswise movement of the cutting device,

said sheets are rolled around a winding support (11), and

each of the rolls is separated after their formation, the first strips (10B<sub>1</sub>, 10B<sub>2</sub> ...) thus made by the ends (10A<sub>1</sub>, 10A<sub>2</sub>, ...) of said sheets are projected outward to the center onto one of the sides of the roll.

22. A process for manufacturing a roll as defined in one of Claims 2 to 5, in which,

a wide sheet of flexible material is cut into a plurality of individual sheets (10<sub>1</sub>, 10<sub>2</sub>, ...) arranged side by side, the first strip (10B) is made by the crosswise movement of the winding support, the first strips (10B<sub>1</sub>, 10B<sub>2</sub>, ...) coming from the ends (10A<sub>1</sub>, 10A<sub>2</sub>, ...) of the sheets project outward on one of the sides of the rolls after the separation of said rolls.

23. A process for manufacturing a roll as defined in Claim 6 in which,

a wide sheet of flexible material is cut by means of a cutting device into individual sheets ( $10_1$ ,  $10_2$ , ...) arranged side by side,

the groove is made by the crosswise movement of a second cutting device initially aligned with the first, on a specific length of the sheet, thus its return is made to the initial position, while eliminating the part thus cut.

24. A process for manufacturing a roll according to the Claim 6 in which the groove (21) or the recess (31) is made by means of a tool, after the formation of the roll.

25. A process for the manufacturing a roll as defined in one of Claims 7 to 9 in which the added element is arranged on the end of the sheet (10A) before winding or after separation of the rolls, projecting outward at the center on one of the sides of the roll.